What is claimed is:

1. A coating and developing treatment method for performing a coating and developing treatment for a substrate in a processing zone of a coating and developing treatment system, comprising the steps of:

supplying a coating solution to the substrate to form a coating layer on the substrate;

performing a developing treatment for the substrate in the processing zone after it undergoes an exposure processing by an aligner not included in the system; and

carrying the substrate into the chamber after said step of forming the coating layer and before the exposure processing, and thereafter reducing the pressure inside the airtightly closed chamber to a predetermined pressure to remove from the substrate impurities adhering to the substrate inside the chamber for a predetermined time,

wherein the predetermined pressure and the predetermined time are adjusted based on the density of the impurities measured inside the processing zone.

2. A coating and developing treatment method according to claim 1, further comprising the step of:

classifying the density of the impurities into predetermined density ranges and storing the aforesaid predetermined pressure and the aforesaid predetermined time corresponding to the respective density ranges,

wherein the predetermined pressure and the predetermined time are adjusted based on the measured density of the impurities to equal to the stored predetermined pressure and predetermined time corresponding to the predetermined density range to which the measured density belongs.

3. A coating and developing treatment method according to claim 1, wherein pressure-reducing speed in said step of reducing the pressure inside the chamber to the predetermined pressure is adjusted based on the density of the impurities.

4. A coating and developing treatment method for performing a coating and developing treatment for a substrate in a processing zone of a coating and developing treatment system, comprising the steps of:

supplying a coating solution to the substrate to form a coating layer on the substrate;

performing a developing treatment for the substrate in the processing zone after it undergoes an exposure processing by an aligner not included in the system; and

carrying the substrate into the chamber after said step of forming the coating layer and before the exposure processing, and thereafter reducing the pressure inside the airtightly closed chamber to a predetermined pressure to remove from the substrate impurities adhering to the substrate inside the chamber for a predetermined time,

wherein the predetermined pressure and the predetermined time are adjusted based on the density of the impurities measured inside a clean room where the coating and developing treatment system is placed.

5. A coating and developing treatment method according to claim 4, further comprising the step of:

classifying the density of the impurities into predetermined density ranges and storing the aforesaid predetermined pressure and the aforesaid predetermined time corresponding to the respective density ranges,

wherein the predetermined pressure and the predetermined time are

adjusted based on the measured density of the impurities to equal to the stored predetermined pressure and predetermined time corresponding to the predetermined density range to which the measured density belongs.

6. A coating and developing treatment method according to claim 4,

wherein the pressure-reducing speed in said step of reducing the pressure inside the chamber to the predetermined pressure is adjusted based on the density of the impurities.

7. A coating and developing treatment method for performing a coating and developing treatment for a substrate in a processing zone of a coating and developing treatment system, comprising the steps of:

supplying a coating solution to the substrate to form a coating layer on the substrate;

performing a developing treatment for the substrate in the processing zone after it undergoes an exposure processing by an aligner not included in the system; and

carrying the substrate into the chamber after said step of forming the coating layer and before the exposure processing, and thereafter reducing the pressure inside the airtightly closed chamber to a predetermined pressure to remove from the substrate impurities adhering to the substrate inside the chamber for a predetermined time,

wherein pressure-reducing speed in said step of reducing the pressure is adjusted based on the density of the impurities measured inside the processing zone.

8. A coating and developing treatment method according to claim 7, further comprising the step of:

classifying the density of the impurities into predetermined density

ranges and storing the aforesaid predetermined pressure-reducing speed corresponding to the respective density ranges,

wherein the predetermined pressure-reducing speed is adjusted based on the measured density of the impurities to equal to the stored predetermined pressure-reducing speed corresponding to the predetermined density range to which the measured density belongs.

9. A coating and developing treatment method for performing a coating and developing treatment for a substrate in a processing zone of a coating and developing treatment system, comprising the steps of:

supplying a coating solution to the substrate to form a coating layer on the substrate;

performing a developing treatment for the substrate in the processing zone after it undergoes an exposure processing by an aligner not included in the system; and

carrying the substrate into the chamber after said step of forming the coating layer and before the exposure processing, and thereafter reducing pressure inside the airtightly closed chamber to a predetermined pressure to remove from the substrate impurities adhering to the substrate inside the chamber for a predetermined time,

wherein pressure-reducing speed in said step of reducing the pressure is adjusted based on the density of the impurities measured inside a clean room where the coating and developing treatment system is placed.

10. A coating and developing treatment method according to claim 9, further comprising the step of:

classifying the density of the impurities into predetermined density ranges and storing the aforesaid predetermined pressure-reducing speed

corresponding to the respective density ranges,

wherein the predetermined pressure-reducing speed is adjusted based on the measured density of the impurities to equal to the stored predetermined pressure-reducing speed corresponding to the predetermined density range to which the measured density belongs.

11. (OA coating and developing treatment system for performing a coating and developing treatment for a substrate, comprising:

a processing zone having a coating treatment unit for forming a coating layer on the substrate, a developing treatment unit for performing a developing treatment for the substrate, and a heat treatment unit for performing a heat treatment for the substrate;

an interface section for carrying the substrate between said processing zone and an aligner not included in the system for performing an exposure processing for the substrate;

a density measuring unit for measuring the density of impurities at least inside said processing zone or said interface section;

a reduced-pressure impurity removing unit having a chamber which can be closed airtightly for reducing the pressure inside the chamber to a predetermined pressure before the substrate undergoes the exposure processing to remove the impurities adhering to the coating layer on the substrate inside the chamber for a predetermined time; and

a reduced-pressure control unit for controlling at least the predetermined pressure or predetermined time based on the value measured by said density measuring unit.

12. (A coating and developing treatment system according to claim 11, further comprising:

a controller for classifying the density of the impurities into predetermined density ranges, storing the predetermined pressure and the predetermined time corresponding to the respective density ranges, and controlling said reduced-pressure control unit to adjust the predetermined pressure and the predetermined time to equal to the stored predetermined pressure and predetermined time corresponding to the predetermined density range to which the measured value belongs.

13. (Twice Amended) A coating and developing treatment system according to claim 11,

wherein said reduced-pressure control unit also controls pressure-reducing speed at the time of reducing the pressure of the chamber to the predetermined pressure, also based on the value measured by said density measuring unit.

14. (Twice Amended) A coating and developing treatment system for performing a coating and developing treatment for a substrate, comprising:

a processing zone having a coating treatment unit for forming a coating layer on the substrate, a developing treatment unit for performing a developing treatment for the substrate, and a heat treatment unit for performing a heat treatment for the substrate;

an interface section for carrying the substrate between said processing zone and an aligner not included in the system for performing an exposure processing for the substrate;

a casing for accommodating said processing zone and said interface section;

a density measuring unit for measuring the density of impurities inside a clean room which is disposed outside said casing and in which the system is placed;

a reduced-pressure impurity removing unit having a chamber which can be closed airtightly for reducing the pressure inside the chamber to a predetermined pressure before the substrate undergoes the exposure processing to remove the impurities adhering to the coating layer on the substrate inside the chamber for a predetermined time; and

a reduced-pressure control unit for controlling at least the predetermined pressure or the predetermined time of said reduced-pressure impurity removing unit based on the value measured by said density measuring unit.

15. (14) A coating and developing treatment system according to claim 14, further comprising:

a controller for classifying the density of the impurities into predetermined density ranges, storing the predetermined pressure and the predetermined time corresponding to the respective density ranges, and controlling said reduced-pressure control unit to adjust the predetermined pressure and the predetermined time to equal to the stored predetermined pressure and predetermined time corresponding to the predetermined density range to which the measured value belongs.

16. (15) A coating and developing treatment system according to claim 14,

wherein said reduced-pressure control unit also controls pressure-reducing speed at the time of reducing the pressure of the chamber to the predetermined pressure, also based on the value measured by said density measuring unit.

17. (16) A coating and developing treatment system for performing a coating and developing treatment for a substrate, comprising:

a processing zone having a coating treatment unit for forming a

coating layer on the substrate, a developing treatment unit for performing a developing treatment for the substrate, and a heat treatment unit for performing a heat treatment for the substrate;

an interface section for carrying the substrate between said processing zone and an aligner not included in the system for performing an exposure processing for the substrate;

a density measuring unit for measuring the density of impurities at least inside said processing zone or said interface section;

a reduced-pressure impurity removing unit having a chamber which can be closed airtightly for reducing the pressure inside the chamber to a predetermined pressure before the substrate undergoes the exposure processing to remove the impurities adhering to the coating layer on the substrate inside the chamber for a predetermined time; and

a reduced-pressure control unit for controlling pressure-reducing speed of the reduced-pressure impurity removing unit based on the value measured by said density measuring unit.

18. (A) A coating and developing treatment system for performing a coating and developing treatment for a substrate, comprising:

a processing zone having a coating treatment unit for forming a coating layer on the substrate, a developing treatment unit for performing a developing treatment for the substrate, and a heat treatment unit for performing a heat treatment for the substrate;

an interface section for carrying the substrate between said processing zone and an aligner not included in the system for performing an exposure processing for the substrate;

a casing for accommodating said processing zone and said interface

section;

a density measuring unit for measuring the density of impurities inside a clean room which is disposed outside said casing and in which the system is placed;

a reduced-pressure impurity removing unit having a chamber which can be closed airtightly for reducing the pressure inside the chamber to a predetermined pressure before the substrate undergoes the exposure processing to remove the impurities adhering to the coating layer on the substrate inside the chamber for a predetermined time; and

a reduced-pressure control unit for controlling pressure-reducing speed of said reduced-pressure impurity removing unit based on the value measured by said density measuring unit.

19. (18) A coating and developing treatment system according to claim 11,

wherein said interface section and the aligner are connected with each other via a delivery section and said reduced-pressure impurity removing unit is disposed in the delivery section.

20. (19) A coating and developing treatment system according to claim 16,

wherein the delivery section has a first path along which the substrate passes when carried from said interface section to the aligner, and a second path along which the substrate passes when carried from the aligner to said interface section, and

said reduced-pressure impurity removing unit is disposed in the first path.

21. (20) A coating and developing treatment system according to claim 11,

wherein said reduced-pressure impurity removing unit is disposed in said interface section.